AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A control system for controlling a steering device of a ship by the heading of the ship based on a deviation of the heading from a target value thereof and control parameters, said control system comprising:

a behavior feature value detector for detecting one of the period and the frequency of behaviors of a specific kind performed by the ship;

a variation calculator for calculating the amount of variations in said one of the period and the frequency; and

a control parameter updator for updating the value of at least one of the control parameters based on the amount of said variations.

2. (Previously Presented) The control system according to claim 1, wherein the control parameter updator decreases the value of a proportional control coefficient which constitutes one of the control parameters according to an amplitude of the heading when the amount of said variations is smaller than a specific threshold value.

3. (Original) The control system according to claim 1 or 2, wherein the control parameter updator increases the value of a proportional control coefficient which constitutes one of the control parameters according to the magnitude of the deviation when the amount of said variations is equal to or larger than a specific threshold value.

4. (Original) The control system according to claim 3, wherein the control parameter updator decreases the value of a differential control coefficient which constitutes one of the control parameters when the amount of said variations is equal to or larger than the specific threshold. value.

5. (Previously Presented) The control system according to claim 1, wherein the variation calculator calculates the amount of said variations based on a standard deviation of one of the periods and the frequencies of a specific number of the latest behaviors.

6. (Previously Presented) The control system according to claim 1, said control system further comprising:

a behavior detector for successively determining a time range of each of the behaviors of the specific kind performed by the ship based on the control parameters;

wherein the behavior feature value detector detects said one of the period and the frequency of the behaviors of the specific kind based on the time range.

7. (Previously Presented) The control system according to claim 6, wherein the behavior detector determines timings at which the heading takes extrema as being a start timing and an end timing of the time range of each of the behaviors.

8. (Canceled)

9. (Previously Presented) A control method for regulating the heading of a ship based on a deviation of the heading from a target value thereof and control parameters, said control method comprising:

a behavior feature value detecting step of detecting one of the period and the frequency of behaviors of a specific kind performed by the ship;

a variation calculating step of calculating the amount of variations in said one of the period and the frequency; and

a control parameter updating step of updating the value of at least one of the control parameters based on the amount of said variations.

10. (Currently Amended) A control state judgment device used in a control system for controlling a steering device of a ship by regulating the heading of the ship based on a deviation of a controlled quantity from a target value thereof and control parameters, said control state judgment device comprising:

a behavior feature value detector for detecting one of the period and the frequency of behaviors of a specific kind performed by the ship;

a variation calculator for calculating the amount of variations in said one of the period and the frequency; and

a control state judgment section for determining a control state of the ship based on the amount of said variations.

11. (Previously Presented) A control state judgment method used in a control system for regulating the heading of a ship based on a deviation of a controlled quantity from a target value thereof and control parameters, said control state judgment method comprising:

a behavior feature value detecting step of detecting one of the period and the frequency of behaviors of a specific kind performed by the ship;

a variation calculating step of calculating the amount of variations in said one of the period and the frequency; and

a control state judgment step of determining a control state of the ship based on the amount of said variations.